

LASER MULTIPLEXING

ABSTRACT OF THE DISCLOSURE

A laser multiplexing system and method for use
5 with high power pulsed lasers in Extreme Ultraviolet
Lithography is disclosed. In a first embodiment, a
high power EUV laser multiplexing element for laser
produced plasma generation has a compound lens with at
least two focusing elements arranged to focus at least
10 two respective laser beams to a focal point on a
common workpiece. In a second embodiment, a laser
multiplexing apparatus has at least two pulsed laser
sources for generating pulsed laser beams and a
temporal multiplexing element arranged to temporally
15 interleave at least two pulsed laser beams. In a
third embodiment, a laser multiplexing assembly
comprises a beam shaping element in which the beam
shaping element is arranged to direct a first laser
beam along an axis common with a second laser beam
20 axis onto a common focusing element arranged about the
common axis.